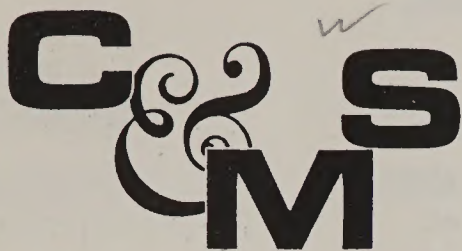


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UNITED STATES DEPARTMENT OF AGRICULTURE

Martel. DU 8-3285

McDavid DU 8-4026

Washington, May 15, 1970

USDA Authorizes Bulgaria, Romania to Export Meat to U.S.:

The U.S. Department of Agriculture stated today that the meat inspection systems in Bulgaria and Romania have been determined to be equal to the inspection program in the United States and that the two countries are now eligible to export meat to the United States.

As a result of requests received from the two countries, and subsequent reviews, USDA published a proposal on Feb. 25, 1970 (press release USDA 627-70) to add Bulgaria and Romania to the eligible export list and allowed interested parties until March 28 to comment.

The conclusion that these two countries have inspection, building construction and other requirements equal to those in the U.S. program was reached following comparison of their laws and regulations to U.S. meat inspection laws and regulations and after foreign review officers from USDA's Consumer and Marketing Service observed the inspection programs in action in the two countries.

Bulgaria and Romania can now certify those individual plants found qualified to export meat. Each of these plants will be visited at least once a year by a C&MS foreign review officer. In addition, supervisory officials from the two countries' inspection programs must make monthly visits to each certified plant and make available to C&MS personnel the records of these visits.

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The annual reviews by C&MS officials are in addition to the daily inspection at the export plants by inspectors employed by the foreign government. C&MS said both Bulgaria and Romania are fully staffed by government employed veterinarians working in comprehensive meat inspection programs.

All foreign meat or meat products arriving in the United States are subject to various tests for wholesomeness at the ports of entry. Canned ham is the principal product Bulgaria and Romania plan to export here, C&MS said.

The addition of Bulgaria and Romania to the eligible list will become official on June 19, 30 days after publication of this announcement in the Federal Register on May 20.

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USDA 1528-70

UNITED STATES DEPARTMENT OF AGRICULTURE

LoCastro DU 8-3285
McDavid DU 8-4026

Washington, May 18, 1970

USDA Extends Time for Comments on Control of Moisture in Poultry:

The U.S. Department of Agriculture announced today an extension of time until June 18 for public comment on its proposal to tighten control of moisture in poultry.

The original deadline for comments on the measure (Press Release USDA 857-70) was May 19. The extension provides for an additional thirty days for interested persons to state their views. USDA's Consumer and Marketing Service said the extension was made because of requests for extra time.

The proposal, if adopted, would prevent excessive pickup of moisture during poultry processing, provide for corrective action where needed, and require Federal inspectors to retain immediately any lots of poultry found to contain too much moisture. It would constitute an amendment to C&MS poultry inspection regulations.

Two copies of any comment should be sent by June 18 to the Hearing Clerk, Room 112-A, U.S. Department of Agriculture, Washington, D. C. 20250. All comments will be available for public review. The proposal was published in the March 20 Federal Register. Copies of this proposed amendment are available from the Consumer Protection Programs Services Staff, Consumer and Marketing Service, U.S. Department of Agriculture, Washington, D. C. 20250.

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UNITED STATES DEPARTMENT OF AGRICULTURE

LoCastro DU 8-3285
McDavid DU 8-4026

Washington, May 27, 1970

Federal Meat Inspection Suspended at California Processing Plant:

The U.S. Department of Agriculture announced today that Federal meat inspection has been suspended at Prime Meat Products, 1100 Pine Street, Ukiah, Calif., effective May 26.

USDA's Consumer and Marketing Service said that sanitation and facilities in the plant did not meet Federal requirements.

Officials said the plant is not entitled to process meat or meat products for interstate shipment, or to use the Federal inspection mark while the suspension is in effect. The plant cannot sell solely within California unless it is granted California inspection which is required by the Wholesome Meat Act when a plant is not Federally inspected. California State officials were advised of the Federal suspension and indicated they will cooperate fully with Federal authorities.

Inspection service was suspended at the Prime plant under provisions of the Federal Meat Inspection Act and the regulations issued under it. They require that all meat and meat products shipped in interstate or foreign commerce must be inspected before and after slaughter, and that plants and facilities be operated under sanitary conditions.

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UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND MARKETING SERVICE
WASHINGTON, D.C. 20250

**Chapter III—Consumer and Marketing
Service (Meat Inspection), Depart-
ment of Agriculture**

**SUBCHAPTER A—MEAT INSPECTION
REGULATIONS**

PART 327—IMPORTED PRODUCTS

**Eligibility of Bulgaria and Romania for
Importation of Meat Products Into
the United States**

On February 26, 1970, there was published in the FEDERAL REGISTER (35 F.R. 3760), a notice of a proposal to amend § 327.2 of the Federal Meat Inspection Regulations (9 CFR Part 327), to change paragraph (b) of that section to include the words "Bulgaria" and "Romania" in alphabetical order in the list of countries specified therein from which certain products (meat, meat food product, and meat byproduct) may be imported into the United States as provided in said regulations.

After due consideration of all relevant matters in connection with the notice of proposed rule making and under the authority of the Federal Meat Inspection Act (34 Stat. 1260, as amended by the Wholesome Meat Act of 1967, 81 Stat. 584, 21 U.S.C. 601 et seq.), paragraph (b) of § 327.2 is hereby amended to read as follows:

**§ 327.2 Eligibility of foreign countries
for importation of product into the
United States.**

* * * * *

(b) It has been determined that product from the following countries, covered by foreign meat inspection certificates of the country of origin as required by § 327.6, except fresh, chilled or frozen, or other product ineligible for impor-

tation into the United States from countries in which the contagious and communicable disease of rinderpest, or of foot-and-mouth disease, or of African swine fever exists as provided in Part 94 of this title, is eligible for importation into the United States after inspection and marking as required by the applicable provisions of Parts 301 through 328 of this subchapter.

Argentina.	Ireland (Eire).
Australia.	Italy.
Austria.	Japan.
Belgium.	Luxembourg.
Bulgaria.	Mexico.
Brazil.	Netherlands.
Canada.	New Zealand.
Colombia.	Nicaragua.
Costa Rica.	Northern Ireland.
Czechoslovakia.	Norway.
Denmark.	Panama.
Dominican Republic.	Paraguay.
England and Wales.	Poland.
Finland.	Romania.
France.	Scotland.
Germany (Federal Republic).	Spain.
Guatemala.	Sweden.
Haiti.	Switzerland.
Honduras.	Uruguay.
Hungary.	Venezuela.
Iceland.	Yugoslavia.

(Sec. 21, 34 Stat. 1260, as amended, 21 U.S.C. 621; 29 F.R. 16210, as amended; 33 F.R. 10750)

The foregoing amendment shall become effective 30 days following publication of this notice in the FEDERAL REGISTER.

Done at Washington, D.C., on May 14, 1970.

RICHARD E. LYNG,
Assistant Secretary.

[F.R. Doc. 70-6197; Filed, May 19, 1970;
8:47 a.m.]

UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND MARKETING SERVICE
WASHINGTON, D.C. 20250

[7 CFR Part 81]

TEMPERATURE AND COOLING AND
FREEZING PROCEDURES

Extension of Time for Filing Comments
on Proposed Amendment

On March 20, 1970, there was published (35 F.R. 4865) a proposal to amend § 81.50 of the Regulations (7 CFR 81.50) under the Poultry Products Inspection Act as amended by the Wholesome Poultry Products Act (21 U.S.C. 451 et seq.), to change the requirement regarding temperature and cooling and freezing procedures.

The notice provided for interested parties to submit comments concerning the proposed amendment within 60 days after the date of publication in the FEDERAL REGISTER. Requests have been received to provide an additional period for development of data and submission of comments regarding the proposed amendment. Therefore, notice is hereby given of an extension of time for submitting comments. Any person who wishes to submit written data, views, or arguments concerning the proposed amendment may do so by filing them, in duplicate, with the Hearing Clerk, U.S. Department of Agriculture, Washington, D.C. 20250, within 30 days after the date of publication of this notice in the FEDERAL REGISTER. All such statements will be available for public inspection at the office of the Hearing Clerk during the regular business hours (7 CFR 1.27(b)).

Done at Washington, D.C., on May 15, 1970.

G. R. GRANGE,
Acting Administrator.

[F.R. Doc. 70-6317; Filed, May 20, 1970;
8:52 a.m.]

UNITED STATES DEPARTMENT OF AGRICULTURE

CONSUMER AND MARKETING SERVICE

WASHINGTON, D.C. 20250

DEPARTMENT OF AGRICULTURE**Consumer and Marketing Service****NORTH DAKOTA****Implementation of Designation Under
Federal Meat Inspection Act**

On March 17, 1970, there was published in the *FEDERAL REGISTER* (35 F.R. 4652) a notice of the designation of the State of North Dakota under paragraph 301(c) of the Federal Meat Inspection Act (21 U.S.C. 661(c)), as a State in which the requirements of titles I and IV of the Act would apply to establishments in North Dakota at which any cattle, sheep, swine, goats, or equines are slaughtered or their carcasses, or parts or products thereof, are prepared for use as human food, solely for distribution within such State, and to intrastate transactions, and persons, firms, and corporations engaged in such operations and transactions, in that State. The notice stated that the designation would become effective 30 days after such publication.

On April 13, 1970, a civil action was filed against the Secretary of Agriculture and other officials of the U.S. Department of Agriculture in the U.S. District Court for the District of North Dakota by certain persons in North Dakota seeking a temporary restraining order, preliminary injunction and declaratory relief, to restrain the Department from implementing the designation of the State, and a temporary restraining order was issued against the Department on April 13, 1970. Thereupon the inspection personnel who were in North Dakota to provide Federal inspection at the eligible intrastate plants were assigned to other duties pending the outcome of the litigation. After hearing on the plaintiffs' motion for a preliminary injunction on May 12, 1970, the court on May 15, 1970, vacated the temporary restraining order, denied the plaintiffs' motion for preliminary injunction and dismissed the plaintiffs' complaint and cause of action.

Therefore, the Department will proceed to implement the designation of North Dakota in accordance with the

Act and the final order of the court. It will be necessary to arrange for inspection personnel to conduct inspection in the eligible North Dakota plants, to survey some of the intrastate plants to determine the sanitary condition of such establishments and whether they are otherwise currently eligible for inspection or exemption therefrom under the Act, and to otherwise prepare to fully implement the designation of North Dakota. These activities will proceed immediately and not later than June 22, 1970, the provisions of titles I and IV of the Federal Act will be enforced with respect to intrastate operations and transactions and all persons, firms, and corporations engaged therein in North Dakota, to the same extent and in the same manner as if such operations and transactions were conducted in or for "commerce" within the meaning of the Act, and, without limiting the foregoing, each establishment in North Dakota which conducts any slaughtering of livestock or preparation of the carcasses, or part or products thereof, as described above, must have Federal inspection or qualify for exemption therefrom under section 23(a) or 301(c)(2) of the Act or cease its operations by said date of June 22, 1970.

The prohibitions in title I of the Act against the sale or distribution of adulterated products capable of use as human food immediately apply to intrastate commerce in North Dakota. Furthermore, any establishment within the State which is determined to be producing adulterated meat or meat food products for distribution within the State which clearly endanger the public health may be designated, in accordance with paragraph 301(c) of the Act at any time, as subject to all the provisions of titles I and IV without regard to the designation of the State of North Dakota under the Act, and such provisions are now applicable to all establishments heretofore so designated under the Act.

Done at Washington, D.C., this 21st day of May 1970.

ELVIN A. ADAMSON,
Deputy Assistant Secretary.

[F.R. Doc. 70-6469; Filed, May 22, 1970;
8:49 a.m.]



UNITED STATES DEPARTMENT OF AGRICULTURE
Consumer and Marketing Service
Consumer Protection Programs
Washington, D. C. 20250

SANITATION HANDBOOK OF CONSUMER PROTECTION PROGRAMS

CHANGE: 1

May 28, 1970

PAGE CONTROL CHART

Remove Page	Dated	Insert Page	Dated
15 and 16	Undated	15	5-28-70
		16	Undated
21 and 22	Undated	21	Undated
		22	5-28-70
37 thru 44	Undated	37	Undated
		38 and 39	5-28-70
		39a and 40	Undated
		41 and 42	5-28-70
		43 and 44	Undated
47 and 48	Undated	47	5-28-70
		48	Undated

C. Other approved impervious material.

To prevent accidents, excessively smooth floors should be avoided. Floors where operations are conducted should have a nonslip surface. Good results are obtained by using brick or concrete floors with embedded abrasive particles in the surface.

Concrete or mortar floors that incorporate an approved latex or synthetic resin base also have better than ordinary resistance to meat fats and acids.

Floors must be installed and maintained to eliminate all cracks, depressions or other low areas that would accumulate moisture. They should also be properly pitched for efficient drainage. (Specific requirements for floor pitch and drainage are covered elsewhere in this handbook).

Interior Walls

Interior walls should be smooth, flat and constructed of impervious materials such as glazed brick, glazed tile, smooth-surfaced portland cement plaster or other nontoxic, nonabsorbent material applied to a suitable base. Glass blocks used in wall panels must have smooth exposed surfaces and be installed so as to prevent breakage by equipment or carcasses. Suitable sanitary type bumpers should be provided on walls to prevent damage by handtrucks, carcass shanks, and the like.

Window ledges should be sloped about 45° to promote sanitation. To avoid damage to glass in windows the window sills should be 3 feet or more above the floor.

Coves with radii sufficient to promote sanitary practices should be installed at the juncture of floors and walls in all rooms.

Doorways and Doors

*-Doorways should be wide enough to permit product transferred on rails or in handtrucks to pass through without contacting the jambs. A width of five feet is recommended except that $4\frac{1}{2}$ feet is acceptable when used in connection with 11 foot rails.

If frequently contacted by product, doors and door jambs should be clad with rust-resistant metal with tight soldered or welded seams.

The juncture of the door jambs and the walls should be effectively sealed with a flexible sealing compound.*-

Ceilings

Ceilings should be of good height such as 10 feet or more in workrooms.

Ceilings can be an important source of direct product contamination.

Therefore, they must be maintained free of scaling paint or plaster, dust, condensate and leaks at all times. If possible, it is best to avoid painting ceiling surfaces.

Unnecessary overhead structures such as wiring, pipes and hangers not in use, should be removed as they constitute a needless source of potential contamination. A routine cleaning of overhead structures is essential.

So far as structural conditions permit, ceilings shall be smooth and flat. They should be constructed of portland cement plaster, large-size cement asbestos boards with joints sealed with a flexible sealing compound, or other acceptable impervious material. If the ceiling has exposed joists, the joists must be at least 36 inches on center and designed so that there are no excessive ledges or crevices which would be difficult to keep clean.

Interior Woodwork

In those situations where the use of exposed interior woodwork is unavoidable, dressed lumber should be used. The exposed wood surfaces should be painted with either a good grade nontoxic oil or plastic base paint, or treated with hot linseed oil or a clear wood sealer. The latter two treatments are preferred, particularly on ceiling areas.

Stairs

Stairs in departments handling edible product should be of impervious construction with solid treads and closed risers. They should also have side curbs of similar material, measuring 6 inches high at the front edge of the treads.

Screens, Insect Control and Rodent Proofing

The plant and facilities must provide adequate screening and other protection to exclude birds, dogs, cats, and vermin (including, but not limited to insects and rodents).

All windows, doorways, and other openings that would admit insects such as flies shall be equipped with effective insect and rodent screens. Effectively designed and installed "fly chaser" fans and ducts should be provided over doorways in outside walls of food handling areas that are used for shipping or receiving.

Except in the case of solid masonry walls constructed of glazed tile, glazed brick, etc., expanded metal or wire not exceeding ½ inch mesh should be imbedded in walls and floors at their junction. This mesh should extend vertically and horizontally a sufficient distance to exclude the entrance of rats and other rodents.

PLANT WATER SUPPLY

Potable Water

An adequate supply of fresh clean water is of primary importance in sanitation programs and plant operations. The first requirement is that the water supply in the plant be "potable." This simply means drinkable or safe for human consumption without further treatment such as boiling or adding chemicals.

In general, potability requirements consist of the following general considerations:

- A. Physical Characteristics - water should contain no impurity which would cause offense to the sense of sight, taste, or smell.
- B. Microbiological Quality - water should not contain any microorganisms that would be a potential threat to human health. Practically all diseases known to be commonly transmitted through water are due to organisms which are discharged through the intestines.

Therefore, in addition to being very offensive, fecal contamination of water represents one of the most dangerous forms of pollution. Since the coliform group of bacteria are universally present in fecal material, laboratory tests for this group gives a direct indication of the numbers of intestinal bacteria present. Thus, the coliform count is the usual measure of water safety.

- C. Chemical Characteristics - water should not contain any chemical impurities in concentrations which may be hazardous to the health of consumers. Water should not be excessively corrosive to the supply system. Substances used to treat water should not remain in concentrations greater than required by good practice.

Water should not contain substances that may have a harmful physiological effect or those for which physiological effects are not known.

- D. Radioactivity - Exposure of humans to radiation is harmful; therefore, water should not contain radioactive materials.

As a minimum, the plant water supply must pass the tests prescribed for potability in the "Drinking Water Standards" promulgated by the Public Health Service of the U. S. Department of Health, Education and Welfare. Water from any source not approved and certified as potable is automatically deemed non-potable.

-Plant management has the responsibility to see that the water used in the plant is tested periodically by an approved laboratory and be certified as potable by the appropriate local health authority. -

If potable water is supplied from private wells, the wells should be on the premises of the establishment and effectively protected from pollution. The primary consideration in avoiding pollution is construction of the well in such a manner as to prevent the entrance of contaminating material directly from the ground surface or in water that enters the well with insufficient filtration through the soil.

Precautions should normally be taken to insure that no water can enter the well unless it has percolated through at least 10 feet of soil. Wells should be located on higher ground than, and at a safe distance from, sources of pollution such as a septic tank, tile disposal field, livestock pens, and inedible or condemned products handling areas. The distance is usually specified by local health department codes.

If chlorinators are required to assure a continuous potable supply, they should be the automatic type and provided with devices that inform the plant management and inspector when they have ceased to function.

When an approved public water supply is used, annual certification based on samples taken within the plant's distribution system is adequate. Water from private wells requires testing each six months. These are minimum requirements. If at any time the inspector suspects that the plant water supply is unacceptable, rejection of the supply and immediate sampling should take place.

The purpose of water sampling is twofold; first, it is to determine the potability of water as supplied to the plant; and second, it is to determine that there has been no pollution of the water supply within the plant's distribution system.

Since frequent testing is required of water in an approved public water supply, it can usually be accepted into the plant as potable. The chief concern in this case is the possibility of pollution within the plant. Therefore, the certification samples must be taken at various points of distribution in the plant. A single sample taken at the meter is of little or no value as it does not indicate the quality of the water actually included in or used on product.

A careful study of the plant's water distribution system with exploration of possible pollution sources should enable more meaningful samples to be collected.

Generally, samples should be taken in as many different areas of the plant as practical. Possible sources of in-plant pollution include, but are not limited to the following:

A. Non-potable water supply - A non-potable water supply is a potential source of danger. In some plants the supply of potable water is limited and costly and a non-potable supply from a river, lake or unapproved well

Disposal of Paunch Contents, Hog Hair, Blood, and Similar Waste Material

Waste materials such as paunch contents, hog hair, blood, and pen manure must not be allowed to accumulate on or near the premises and must be disposed of without creating objectionable conditions.

Manure which has been removed from livestock pens frequently becomes a problem. Immediate removal from the premises is the best procedure, but under some circumstances, temporary storage of manure is necessary.

Properly drained concrete storage bins are necessary as storage of manure on the ground surface is unacceptable. Even when adequate temporary storage facilities are provided, at least a once-weekly removal schedule should be established and the bins thoroughly cleaned before reuse.

Blood that is not processed within the plant must be removed daily in water-tight covered containers. Filling of blood containers is to be done in a well drained, paved area equipped with water outlets. The area is to be washed at least daily and at more frequent intervals if needed.

Hog hair, paunch contents and the like are to be removed daily.

Rubbish Removal

Rubbish such as used paper towels, cartons, office waste, labeling materials, etc., frequently can be a sanitation problem. Suitable containers conveniently located throughout the plant must be provided and emptied frequently.

The accumulation of rubbish prior to its removal or incineration must not cause a nuisance. (Refer to section on Outside Premises for a more detailed discussion.)

CHAPTER XVI

EQUIPMENT

Equipment used in meat handling and processing ranges **all** the way from the most simple hand tools to large, highly complex, electronically operated machinery. Since there is extensive contact of product with equipment surfaces, this is where potential hazards to product safety and cleanliness lie.

Therefore, equipment must be constructed and maintained so that it can be easily kept clean. All surfaces contacting product must be free of scale; should be smooth, nonporous; and should be free from pits, crevices, seams, or joints in which food may lodge, decompose and support the growth of organisms.

The overall design and installation of equipment should provide for easy cleaning and sterilization where necessary. It must also conform to applicable specifications in Agriculture Handbook No. 191, "U. S. Inspected Meat Packing Plants: A Guide to Construction, Equipment, Layout."

Materials used within the product zone must be nonabsorbent, nontoxic, odorless and must be unaffected by food products and cleaning compounds.

Acceptable Materials

A. Metal

With few exceptions, equipment must be constructed either of rust-resisting metal, such as 18-8 (300 series) stainless steel, or of plastic approved by the C&MS Technical Services Division. Galvanized metal, although acceptable in certain equipment, is not desirable because it is not adequately resistant to the corrosive action of food products and cleaning compounds. When used, galvanized metal must have the smoothness of high quality commercial hot dip.

*-Copper has some limited uses in connection with food processing equipment such as in water lines, air lines, and gear bushings and seals outside the product zone. Because of its catalytic action, copper **and** its alloys are not acceptable for use in pumps, fittings, lines or other equipment used to handle edible fats and oils.

Alloys containing copper find some application in food processing equipment, provided they do not stain or otherwise affect the product or contribute to unsanitary conditions. Proposals for use of copper or copper alloys in applications other than listed in the preceding paragraph should be presented to the Equipment Group for approval.-*

B. Plastics and Resins

Plastic materials and resinous coatings must be abrasion - and heat-resistant, shatterproof, nontoxic, and shall not contain a constituent that will migrate to meat or other products in contact with the material. Metal drums coated on the inner surface with lacquer or resin may be used for rendered fats, providing the coating is smooth, odorless, hard and does not peel or blister.

All such materials and coatings must be approved by the Technical Services Division prior to use. Such approval is usually given only to the manufacturer, and then only after submission of a statement showing the chemical composition, intended use, method of applications, action while in contact with water, and product, and any toxicological data deemed necessary.

Nonacceptable Materials

There are many materials that are highly undesirable or totally unacceptable for use in equipment construction. The following is a partial listing. Questions on other materials should be directed to the Technical Services Division.

* * *

A. Cadmium and antimony are toxic compounds and are not acceptable in any manner or form in equipment used for handling edible product.

B. Also, due to its toxic nature, lead must not be used in equipment contacting edible product, except that it may be employed in dairy solder in an amount not to exceed 5 percent. Lead babbitt, frequently employed in head splitting equipment, is not acceptable. Nylon or other approved plastics make suitable substitutes.

C. Due to the high risk of chipping, the use of containers or equipment made of enamelware or porcelain is not acceptable for any purpose in connection with the handling and processing of product.

D. Painted surfaces are not permanent and may readily contaminate the food. Therefore, paint is not acceptable on any equipment area which may contact product.

E. Wood is not a satisfactory material for equipment construction since it does not maintain a smooth surface and is not impervious. Wood used in any manner resulting in product contact is strongly discouraged. It is permitted only in those situations where strict sanitary standards are practical and can be rigidly enforced.

F. Leather and fabrics, due to their porous nature, are not acceptable materials for equipment construction. Filter cloths used in rendered fat filter presses are permitted, provided they are clean and freshly laundered.

G. Dissimilar metals should not be used in equipment construction if their contact with liquid or other products may create harmful chemical and electrolytic action.

EQUIPMENT DESIGN AND CONSTRUCTION

Sanitary design principles apply to all types of equipment used in the slaughter of livestock and the handling and processing of product. The primary objective of sanitary design is to facilitate keeping equipment clean, thereby controlling and preferably eliminating product contamination. The continuing push for greater and greater production generally tends to increase the contamination hazards and sometimes seriously curtails the time available for clean-up. Sound sanitary design of both the plant and equipment then becomes even more essential.

In order to encourage the thorough cleaning of equipment, the time and the ease of disassembly are important considerations. Equipment should be as simple in construction as possible and contain the fewest number of parts practical to permit easy dismantling and reassembly following cleaning. The design, construction, and installation should be such that permits easy access for sanitary, as well as mechanical, maintenance.

In-Product ZoneA. Accessibility for Cleaning

All parts of the product zone must be readily accessible to sight and reach for cleaning and inspection. In large equipment, appropriately located clean-out and inspection openings, catwalks, ladders or other suitable provisions must be made to insure that all parts can be cleaned and inspected. It is the plant management's responsibility to demonstrate compliance with this requirement.

B. Clean-In-Place (CIP) Systems

CIP systems are those which do not require complete dismantling for cleaning. Such equipment must be especially designed for CIP procedures that will result in the same or greater degree of cleaning effectiveness as that obtained by dismantled cleaning. Cleaning procedures of this type are only permitted under special conditions individually authorized by the Technical Services Division.

The general criteria used for accepting CIP systems are:

1. Arranged so cleaning and sanitizing solutions can be circulated throughout the fixed system.
2. Such solutions will contact all interior surfaces.
3. The system is self-draining or otherwise completely evacuated.
4. The cleaning procedures result in thorough cleaning of the equipment.

*- 5. Interior finish of pipe should be smooth enough to enable inspector to determine if pipe is clean. Interior of pipe should have highly polished finish (120-180 grit).

6. Provide inspection openings at all changes in direction by the use of easily removable elbows. -*

It is important to note that any pipeline, valve, fitting or part not included and cleaned by the CIP system should be disassembled and manually cleaned. In situations where CIP systems are in use, it is the plant management's responsibility to make the detailed cleaning procedure and its Technical Services Division's approval available to the inspector.

C. Gaskets and Packings

All gasketing and packing materials must be nontoxic, nonporous, non-absorbent, and unaffected by food products and cleaning compounds. Such materials should be installed in a true fit to prevent protrusion of the materials into the product zone or the creation of recesses or ledges at the gasketed joints.

D. Seals and Bearings

All bearings must be located outside the product zone. If it is adjacent to it, it must be constructed with a seal at the entrance of the shaft into the product zone. Sufficient space must be provided to permit the easy removal of the seal assembly for easy cleaning and inspection. Seals and bearings must be installed and maintained so as to prevent lubricant leakage or entrance of product into the assembly.

E. Interior Corners

Interior corners of equipment must be provided with radii (1/4-inch minimum), except where greater radii are required for easy drainage and cleaning.

F. Welded Joints

All welding within the product zone must be continuous, smooth, even, and relatively flush with the adjacent surfaces.

G. Freedom from Cracks, Recesses, Ledges, and the like

All parts of the product zone must be free of recesses, open seams and gaps, crevices, protruding ledges, inside threads, inside shoulders, inside bolts or rivets, and dead ends.

H. Self-Draining Equipment

Where necessary for sanitary maintenance, equipment must be constructed and installed so as to be completely self-draining.

I. Screening, Straining and Filtering Surfaces

All screening, straining and filtering surfaces shall be readily removable for cleaning and inspection. Screening and straining devices should be designed to prevent replacement in an improper position. Permanent screening and straining surfaces should be fabricated from perforated metal.

On dry granular or dry pulverized product, wire screen of not less than 30 x 30 continuous mesh may be used.

Filter papers must be of the single-service type. Filter cloths or spun glass filters shall be launderable.

J. Pumps, Pipelines, and Valves

Pumps, pipes, conductors, valves and fittings used in connection with edible product (including edible brine or vinegar solutions) should be constructed of 18-8 type stainless steel or approved plastic. High-impact resistant glass pipelines may be approved on an individual basis by Technical Services Division.

Pumps and pipelines conveying edible product must be easy to separate for cleaning. They must be kept clean and sanitary and be constructed so that there are no dead spaces in which product may stagnate.

-This requirement also applies to lines used to convey raw fats. Black iron pipelines with threaded or welded joints have been permitted on lines for conveying rendered fats.-

K. Conveyor Belts

All belts used to convey exposed product must be of sanitary grade, moisture-resistant, nonabsorbent material with no exposed fabric core. Conveyor guides, splash guards, etc., should be easily removed or of open construction to permit cleaning.

L. Lubricants

Equipment in which lubricating grease or oil is used should be designed to prevent the contamination of product by lubricating material. As a further precaution against the inclusion of toxic compounds in product, all lubricants used in areas where potential contamination exists must be edible and specifically approved by Technical Services Division.

If the possibility of contamination of products by lubricants exists, the establishment should be required to take suitable corrective measures without delay. A particular concern is the contamination potential of lubricants used in overhead motors, gears, and similar devices. If drip pans are necessary to provide protection, they should be easily accessible for inspection and removable for cleaning.

In-Product Zone

Parts of equipment outside the immediate product zone are also important due to the hazards of indirect and/or accidental contamination of product. In many cases, workers handle product and equipment alternately which increases the contamination potential.

Therefore, many of the principles of design and construction illustrated in the product zone apply here as well:

- A. All external surfaces must be free of open seams, gaps, crevices, and inaccessible recesses.
- B. Horizontal ledges or frame members must be kept to a minimum.
- C. All external parts should be of round or tubular material where possible to avoid accumulation of debris and to permit easy cleaning.
- D. All safety or gear guards must be readily removable for cleaning and inspection.
- E. Components that may not be cleaned (motors, electrical gear, etc.) must be sealed against entrance of product and water.

EQUIPMENT INSTALLATION

Certain requirements on the placement, arrangement and installation of equipment have been established to permit convenient, positive cleaning. Constant attention must be given to these details in order to maintain an orderly flow and clean handling of product. The initial installation of equipment and every change in operations must be carefully analyzed for potential sanitation problems. Any circumstance that could result in product contamination should be avoided.

Spacing from Walls, Ceiling and Floor

All permanently mounted or not readily movable equipment must either be installed sufficiently above the floor and away from wall and ceiling areas to provide access for cleaning and inspection or be completely sealed (watertight) to these areas.

Whenever equipment, chutes, or pipelines pass through walls, they should either be sealed to them or sufficient clearance should be allowed to permit inspection, cleaning and maintenance. Where pipes pass through ceilings of exposed product areas, pipe sleeves should be inserted in the floor above so that their upper periphery is at least 2 inches above the floor.

Wall-Mounted Facilities

Wall-mounted cabinets and electrical connections (such as switch boxes, electrical panels, and BX cables) must be either installed at least 1 inch from equipment or walls, or be completely sealed (watertight) to the equipment or walls.

Water Connections and Control of Waste Water

Where possible, water inlets must discharge above the highest level reached by liquids in the equipment. Those installations requiring submerged water lines must be equipped with a functional vacuum breaker (described elsewhere in this handbook).

Drains should be of adequate size to permit rapid draining without spillage and should be at the lowest point with no inside collar or projection.

All equipment handling waste water must be installed so the waste water is delivered into the drainage system without flowing over the floor.

Equipment handling edible products such as sausage tables, soaking and cooking vats, can sterilizers, tripe scalders and casing preparation equipment should be installed so that waste water from each unit is delivered through an interrupted connection into the drainage system. For some equipment such as tripe scalders, this can be accomplished by placing the machine in a curbed area (6 inch minimum).

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CHAPTER XIX

REQUIREMENTS FOR EQUIPMENT IN GENERAL USE

Lavatories

-Conveniently located hand-washing facilities (lavatories) with a bowl size of about 12 by 16 by 6 inches should be provided for the employees and inspectors. Each lavatory must be supplied with:-

A. Hot and cold running water delivered through a combination mixing faucet with outlet about 12 inches above the rim of the bowl to facilitate washing arms as well as hands.

B. Liquid soap and an ample supply of sanitary towels in suitable dispensers.

C. A suitable receptacle for used towels.

Lavatories in workrooms and welfare rooms should be pedal operated.

Lavatories should also be directly connected to the drainage system.

Drinking Fountains

Sanitary drinking fountains should be provided in large workrooms and in dressing rooms. If desired, they may be located at lavatories and arranged so the overflows discharge into the bowls of the lavatories. If this is done, they should be placed sufficiently high above the bowls to avoid splash onto them when the lavatories are used.

Drinking fountains are particularly important in meat processing departments, otherwise employees may drink from any available cold water outlet. This could result in contaminating product and/or equipment surfaces with water from the employee's mouth and face.

Tables, Sinks, and Sprays for Reconditioning Product

Occasionally product may become unclean by accidental contamination. If practical, it may be cleaned with water. Then the product must be individually washed immediately following accidental contamination and must not be allowed to accumulate.

Separate equipment must be provided for this purpose. A removable perforated metal rack to hold product off the bottom of the sink must be provided. Reconditioning sinks should be identified and other efforts made to preclude their use for hand washing or implement cleaning. In areas such as boning rooms, these sinks should be conveniently located to insure proper usage.

Sterilizers

Sterilizers should be constructed of rust-resistant metal (preferably stainless steel), and should be of sufficient size for complete immersion of knives, cleavers, saws, and other implements in hot water (minimum temperature 180°F). They should adjoin the lavatories in slaughtering departments and elsewhere as required.

Each sterilizing receptacle must be provided with a water line (equipped with a vacuum breaker if submerged), a steam line or other means of heating, an overflow, and facilities for completely emptying the receptacle.

Sterilizers, particularly those used in heavily contaminated areas, must continually overflow during operations.

Hose Connections

Adequate and conveniently located hose connections for clean-up purposes shall be provided throughout the plant. The use of long hoses should be avoided. Suitable racks or reels must be provided for storing the hose when not in use.

Chutes

Many types of chutes are used to convey product from one department, floor, or level to another. They should be constructed so thorough cleaning is possible and ready access for inspection is provided.

Edible product chutes - if feasible the rounded, trough-type chute is most desirable. Chutes should be made demountable so they can be taken down in segments of convenient size for cleaning. Where chutes go through floors, the opening must be surrounded by a concrete curb or a metal flange extending 12 inches or more above the floor. This is to prevent floor drainage from entering the chute. The portion of chute fitting in the floor flange should be removable for cleaning. Closed chutes must be sectionalized to permit cleaning and inspection of all parts and surfaces.

Chutes connecting edible and inedible products departments must be hooded at the edible end and vented to the outside. This, along with a self-closing trap door at the entrance to the hood, prevents passage of odors to the edible products department.

Chutes used to convey inedible or condemned products through edible products areas must be constructed and installed so as to prevent any leakage and possible contamination of the edible product or department. Clean-out and inspection openings must be equipped for official seals.

Cutting and Boning Boards

Boards used on boning and cutting tables should be constructed of approved plastics and must be chamfered on all edges to prevent undue chipping. Solid (unlaminated) pieces of hardwood are acceptable only if they are